

What is claimed is:

1. A driving circuit configured in a three-phase inverter, comprising:

5 a first switch assembly including a first high-side switch connected between an input voltage and a first node, and a first low-side switch connected between said first node and a reference voltage;

10 a second switch assembly including a second high-side switch connected between said input voltage and a second node, and a second low-side switch connected between said second node and said reference voltage;

15 a third switch assembly including a third high-side switch connected between said input voltage and a third node, and a third low-side switch connected between said third node and said reference voltage; and

20 a three-phase transformer having a primary side with three terminals connected with said first, second and third nodes, respectively, and a secondary side with three terminals connected with a first, second and third loadings, respectively;

25 wherein said switches are switched for generating a first AC voltage between said first and second nodes, a

second AC voltage between said second and third nodes, and a third AC voltage between said third and first nodes, respectively, so as to be transformed by said three-phase transformer to generate a first AC current for said first loading, a second AC current for said second loading, and a third AC current for said third loading, respectively.

2. The driving circuit according to claim 1, wherein said three-phase transformer comprises two transformers connected in series.

3. The driving circuit according to claim 1, wherein said three-phase transformer comprises three transformers connected in Y-Y configuration.

4. The driving circuit according to claim 1, wherein said three-phase transformer comprises three transformers connected in Δ - Δ configuration.

5. The driving circuit according to claim 1, wherein said three AC voltages have a phase difference of 120 degrees between each two of them.

6. The driving circuit according to claim 1, wherein

said three AC currents have a phase difference of 120 degrees between each two of them.

7. The driving circuit according to claim 1, wherein
5 said switches each is connected with a diode in parallel.

8. The driving circuit according to claim 1, wherein
said switches each comprises an NMOS transistor.

10 9. The driving circuit according to claim 1, wherein
said input voltage is a DC voltage.

10. The driving circuit according to claim 1, wherein
said three loadings each includes at least one cold cathode
15 fluorescent lamp.

11. A driving method comprising the steps of:
connecting a first switch assembly including a first
high-side and low-side switches connected in series
20 between an input voltage and a reference voltage;
connecting a second switch assembly including a second
high-side and low-side switches connected in series
between said input voltage and reference voltage;
connecting a third switch assembly including a third
25 high-side and low-side switches connected in series

between said input voltage and reference voltage;
switching said high-side and low-side switches for
generating three AC voltages; and
transforming said three AC voltages to three AC currents
5 each for one of three loadings.

12. The method according to claim 11, further
comprising modulating said three AC voltages to have a phase
difference of 120 degrees between each two of them.
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13. The method according to claim 11, further
comprising modulating said three AC currents to have a phase
difference of 120 degrees between each two of them.

14. The method according to claim 11, further
comprising driving at least one cold cathode fluorescent lamp by
each of said three AC currents.
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15. A driving method comprising the steps of:
20 generating a three-phase AC voltage by a three-phase
inverter;
transforming said three-phase AC voltage to a
three-phase AC current by a three-phase
transformer; and
25 driving at least three cold cathode fluorescent lamp each

by one phase of said three-phase AC current.

16. The method according to claim 15, further
comprising modulating said three-phase voltage to have a phase
5 difference of 120 degrees between each two phases thereof.

17. The method according to claim 15, further
comprising modulating said three-phase current to have a phase
difference of 120 degrees between each two phases thereof.

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